



NEWSLETTER

Dates to Remember:

March 6, 2004
Spring Meeting at University of San Diego

Pre-registration deadline: Friday, Feb. 27, 2004

August 12-14, 2004
Mathfest in Providence, RI

Oct. 9-10, 2004
Fall Meeting at University of Nevada, Las Vegas

January 5-8, 2005
Joint Mathematics Meetings in Atlanta, GA

Southern California-Nevada Section to Meet in San Diego and Las Vegas

Claudia Pinter-Lucke, Section Chair

Fall 2003 Meeting. It was a quiet fall meeting Saturday, October 4, 2003, at Cal Poly Pomona. Attendance was low but interest in the talks was high. Mark Finkelstein of UC Irvine, the 2003 Section Distinguished Teaching Award winner, presented a talk on "Estimating the Frequency Distribution of the Numbers Bet on the California Lottery," and both students and faculty made excellent presentations in parallel sessions. The panel discussion on teacher education was quite well attended for the last session of the afternoon with many questions and comments from the audience. Our local Section NExT held a parallel meeting that seemed quite lively whenever I passed by their door. Thank you to all the students and faculty at Cal Poly Pomona who helped out with the meeting.

Fall 2004 Meeting at University of Nevada, Las Vegas. The section is still celebrating its expansion into Nevada. A repre-

sentative from Nevada, Michelle Schultz of UNLV, is sitting on the section officers' board and helping us prepare for the fall meeting in Las Vegas. Mark Saturday and Sunday, October 9 and 10, 2004, on your calendar. We will have an opening reception, several excellent addresses (by Persi Diaconis and Ron Graham, among others), and an evening program of mathematical magic that promises to be more entertaining than the Strip. But first ...

Spring 2004 Meeting at University of San

Diego. The spring meeting will feature interesting and exciting talks by Jeff Weeks, Annalisa Crannell, David Pengelley, and Deborah

Hughes-Hallett. I hope you will invite a student to join you on Saturday, March 6, at the University of San Diego. The spring meeting always includes special events especially for students. This year, there will be a student poster session and a panel discussion on careers in mathematics. And you won't want to miss the announcement of this year's Section Distinguished Teaching Award. The meeting will be held at the Joan B. Kroc Institute for Peace and Justice, a beautiful new building on the edge of the University of San Diego campus with views of downtown San Diego and the harbor. I hope to see you at USD on Saturday, March 6.

Congratulations to 50-year MAA members from the Southern California-Nevada Section, including

**Norman Albrecht
Mansfield Clinnick
A. R. Harvey
R. D. Luce
Victor Shapiro**

Congratulations also to 25-year members **John Angus, Samuel Buss, Kwang-Nan Chow, Kenneth Clark, Owen Fraser, Emmett Keeler, Melvin Lewis, Allen Martin, Irving Reed, C. Ray Rosentrater, Peter Soule, Lynne Small, and Nalsey Tinberg.**

Thank you. Finally, I have enjoyed my term as Chair of the Section, and thank all the members of the Southern California - Nevada Section for giving me this opportunity. I look forward to serving the Section in other ways in the future, while Ken Millett takes over as Chair for the next year.

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Weeks to Speak on "The Shape of Space"

Francis Bonahon, Section Program Vice-Chair

Jeff Weeks, inventor of radical new theories on the shape of the universe, author of the groundbreaking text, *The Shape of Space*, and MacArthur "Genius Grant" winner, will be the featured speaker at the MAA Southern California-Nevada Section Meeting Saturday, March 6, at the University of San Diego. During his talk, "The Shape of Space," Weeks will present brand-new theories about the shape of the universe based on very recent satellite data. His presentation is scheduled for 11 a.m.

Weeks received his AB from Dartmouth College, and his PhD from Princeton University under the direction of Bill Thurston. After a few years of research and teaching at undergraduate institutions, he decided to move away from the traditional career paths in order to better focus his life on his family, mathematical research, and mathematical education. He now describes himself as a "freelance mathematician" and lives in Canton, a small town in the "North Country" of New York State.

A striking feature of Weeks' work is the symbiotic and systematic combination of his research and educational activities. Both have

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The Students' Column

Cynthia Wyels, Student Chapters Coordinator

Plan to attend the Spring 2004 Meeting March 6 at the University of San Diego!

Impress your professors and earn cheers from your peers by presenting a poster at the Spring 2004 Meeting...or simply attend the meeting to listen to outstanding speakers, view others' posters, and get tips from panelists on "How to Land Your First Job." Student admission to the Spring Meeting on Saturday, March 6, 2004, at the University of San Diego is only \$10, and lunch for students is \$6. (See the registration form on page 7 of this newsletter.) Along with three exciting talks by a world-class line-up of mathematicians and the job-hunt-tips panel, the Spring Meeting will feature the annual Student Poster Session. If you present a poster at the Spring Meeting, you'll receive free registration and lunch at the meeting, and a free one-year MAA membership and journal subscription. See Spring 2004 Meeting Student Poster Session, below.

Organize a group of students from your school to attend the Spring Meeting, and encourage your Mathematics Department Chairperson to subsidize your registration and lunch!

Spring 2004 Meeting Student Poster Session

Begin preparing a poster NOW for the Spring Meeting at the University of San Diego, Saturday, March 6, 2004! Posters may feature the results of any individual or group mathematics project. Some past posters have included

- results of honors, senior, or other independent study projects,
- results of classroom projects or modeling contests,
- results of REUs or other summer research programs,
- historical investigations in pure or applied mathematics, and
- solutions of problems from the Putnam Exam or from the *American Mathematical Monthly* or other journals.

The 2003 Student Poster Session featured 40 posters with topics ranging from voting coalitions to elliptic curves. If you don't already have a project in mind, ask one of your professors for a project to present. Besides the challenge of working on the project, benefits to you include

- opportunity to share your work with other students and with mathematicians from both academia and industry in a friendly environment,
- free meeting registration and free lunch,
- free 1-year MAA membership, including a 1-year subscription to an MAA journal (or a free MAA book if you already are an MAA member),
- opportunity to win Best Project, Best Poster, or Honorable Mention Awards, and
- great resume entry.

Questions? Contact Prof. Cindy Wyels, Dept. of Mathematics & Physics, California Lutheran University, 60 W. Olsen Rd., Thousand Oaks, CA 91360; (805)493-3992; wyels@clunet.edu. Submit a title and brief abstract to Prof. Wyels at the address or e-mail address above by **Wednesday, Feb. 25, 2004**. Be sure to include your name, the name of your school, and your advisor's name.

Southern California-Nevada Students Win Prizes at National Poster Session in Phoenix

Kudos to the many students from our section who participated in the Undergraduate Student Poster Session at the Joint Mathematics Meetings in Phoenix, Arizona, on Jan. 9, 2004. These students will be honored at our Spring 2004 Meeting.

Professor Mario Martelli of Claremont McKenna College organized the session, which included 116 posters by students from almost every state in the U.S. Prizes of \$100 each were awarded to 32 of the posters. Southern California-Nevada students winning prizes included the following eight students. Only Southern California-Nevada faculty advisors are listed.

Aaron Arvey, David Nichols, Claremont McKenna College
Periodic and Asymptotically Periodic Solutions of First Order ODEs

Advisor: Mario Martelli, Claremont McKenna College

Melissa Banister, Harvey Mudd College
On Factorization Properties of Congruence Monoids

Erika Frugoni, Loyola Marymount University
Counting Quadratic Forms of Ranks One and Two

Timothy Nawojski, Cal State San Bernardino
Iterated Clasp Move and Upper Bounds for 2-Bridge Links
Advisor: Rolland Trapp, Cal State San Bernardino

Nancy Rodriguez, University of San Diego
Wallpaper: The Mathematics of Art

Katy Vizzard, Bradley Marchand, Cal State Bakersfield
Rank of Elliptic Curves
Advisor: Kamel Haddad, Cal State Bakersfield

UC Santa Barbara Senior Wins AWM Schafer Prize

Kimberly Spears, a senior mathematics major at the University of California, Santa Barbara, was awarded the 2004 Alice T. Schafer Prize for Excellence in Mathematics at the AMS-MAA Joint National Meetings, held January 7-10 in Phoenix, Arizona. The Schafer Prize is presented annually by the Association for Women in Mathematics to an outstanding undergraduate woman mathematics major.

According to Ken Millett of UCSB, Spears' "dedication and passion" has led her to excel in her courses and also to undertake two significant research projects. The first, a generalization of Gauss's Law of Quadratic Reciprocity, was completed at UCLA. The second, on the question of classifying discriminants, d , with one class per genus, is her senior thesis at UCSB. Her proof that no discriminant greater than d_{66} (the smallest with 66 prime factors) has one class per genus, assuming a conjecture about the Grand Unitary Ensemble, is comparable to work done for doctoral dissertations. Spears' mentors are Jeffrey Stopple, UCSB, and William Duke, UCLA. In accepting the award, she also thanked James McKernan, UCSB, for his support.

Mark your calendar for Oct. 9-10 to mix mathematics with magic at the Fall 2004 Meeting in Las Vegas!



Flapan, Watkins Speak on Topology, Statistics at Phoenix Meeting

Two Southern California-Nevada Section members gave MAA invited addresses January 10 at the AMS-MAA Joint Mathematics Meetings in Phoenix, AZ. Erica Flapan of Pomona College presented "When Topology Meets Chemistry" and Ann Watkins of Cal State Northridge gave the MAA Retiring Presidential Address on "Fallacies in Elementary Statistics." We offer two perspectives on each talk.

Staying attentive during the earliest invited lecture on the last day of a packed Joint Meeting was no trouble as SoCalNev Section member **Erica Flapan** demonstrated boundless energy and enthusiasm in delivering her talk, "When Topology Meets Chemistry." Flapan convinced the audience that topological chirality is both a fascinating and useful area of study via a carefully structured series of definitions, well-chosen examples, and stories. She then went on to illustrate several methods used to prove chirality. These included Flapan's own combinatorial approach, which makes use of graph automorphisms and Kuratowski's Theorem on graph planarity. This approach, unlike the others discussed, is embedding independent. Flapan's entire presentation was both captivating and accessible. A grad student in the audience, when asked for a reaction to the talk, replied, "It was awesome!" – *Cindy Wyels, California Lutheran University*

Erica Flapan, Pomona College, gave a wonderful MAA invited address, "When topology meets chemistry." She described some highlights of her twenty-year interest in the geo-

metrical and topological features of structural chemistry. Introducing the audience to some of the fundamental considerations of the structure of molecules, Professor Flapan proceeded to tour the development and application of the critical elements of geometric and topological stereochemistry. The left hand is the "mirror reflection" of the right hand, but, nevertheless, fundamentally distinct spatially. So too are certain pairs of molecules distinct spatially and in their chemical properties while having structures that are mirror reflections of the other. These are important considerations since one of the two might have medical benefits while the other produces disastrous consequences. We were introduced to the molecular Mobius ladder synthesized by David Walba in 1983. We learned about the many different manifestations of chirality in chemistry, geometry and topology. And we learned how mathematics provides methods (discovered by Professor Flapan and others) that enable us to determine the chiral nature of molecules through the study of their models. Those interested in learning more about this topic will want to read Flapan's book, *When Topology Meets Chemistry*, published by the MAA. – *Ken Millett, UC Santa Barbara*

Ann Watkins, California State University, Northridge, gave the MAA Retiring Presidential Address, "Fallacies in Elementary Statistics," during which she focused upon the "mean, median and mode" as she has encountered them in text books, problem sets, standardized exams, and state frameworks

Continued on page 8...

Board of Governors Meets in Phoenix

Mario Martelli, Section Governor

Before writing my last report as Governor of the Southern California Section of the MAA, I want to express my appreciation to all members of the section for selecting me as their governor. During this period our bylaws were changed together with our boundaries. The Northern California Section absorbed San Luis Obispo and surrounding areas. We gained the southern part of Nevada. Our bylaws and name were changed accordingly. We are now the Southern California-Nevada Section of the MAA. To reflect the new situation we shall meet in Las Vegas in the Fall of 2004. Very distinguished speakers already have been lined up to appropriately celebrate this event. We should be grateful to our Secretary-Treasurer Art Benjamin for taking care of all business associated with this transition.

The MAA Board of Governors met on January 6, 2004, at the Hyatt Regency in Phoenix, Arizona. Of particular interest to our constituency is the chart of dues approved for next year. Each one of us should expect a modest increase of \$5. I objected to the proposed increase of student dues from \$20 to \$30. After some discussion, an increase to \$25 was approved.

Our section members Art Benjamin and Jennifer Quinn are now officially the new editors of *Math Horizons*. Congratulations to both. I am sure they will do an excellent job and I am anxiously awaiting their first issue of the journal.

We were strongly represented among the authors of MAA publications. The book, *777 Mathematical Conversation Starters*,

by John de Pillis is doing very well and John was available at the MAA booth of the Book Exhibit to sign copies of his book and entertain buyers with interesting caricatures. Art Benjamin's and Jennifer Quinn's new book, *Proofs that Really Count*, is selling very well and both the authors were at the MAA booth to sign copies.

Jim Tattersall, MAA Associate Secretary, reported that attendance at the Summer Math Fest is steadily increasing. The next Math Fest will be in Providence, RI, August 12-14. I will give the Student Lecture on the secret of Brunelleschi's Cupola of the Cathedral of Firenze. As you may know, the famous Renaissance architect realized the enormous structure without using centering, a not yet fully explained achievement.

The last item discussed during the meeting was a joint MAA and NCTM position paper on Calculus in Secondary School. The discussion on this issue was long and a final conclusion was not reached. While everyone feels that we should support calculus in the high schools, many governors voiced their concerns about the practice of shortchanging the mathematical experience needed for it. It appears that many high schools offer a twelfth grade calculus at the expense of an abbreviated preparatory course. The MAA and NCTM want to approve a joint document recommending the recognition of high school calculus as a college-level course, but want to make sure that high school seniors take it with the necessary background. A revised document will be on the governors' agenda in Providence.



Southern California-Nevada Section of the Mathematical Association of America

Spring 2004 Meeting

Saturday, March 6, University of San Diego

Tentative Schedule

Register!

Complete the registration form on page 7 and send it with payment to:

Ernie Solheid
Dept. of Mathematics
CSU Fullerton
800 N. State College Blvd.
Fullerton, CA 92834

Registration deadline is
Friday, Feb. 27, 2004.

8:30 - noon **Registration**—Joan B. Kroc Institute for Peace and Justice Rotunda

8:30 - 4:30 **Book Sale**—Joan B. Kroc Institute for Peace and Justice Rotunda

9:00 - 9:55 **Invited Address by Annalisa Crannell**

Franklin and Marshall College

Joan B. Kroc Institute for Peace and Justice Theater

Math and Art: The Good, the Bad, and the Pretty

Dust off those old similar triangles, and get ready to put them to new use in looking at art. We're going to explore the mathematics behind perspective paintings---a mathematics that starts off with simple rules, and yet leads into really lovely, really tricky mathematical puzzles. Why do artists use vanishing points? What's the difference between 1-point and 3-point perspective? What's the difference between a perspective artist and a camera? We'll look at all of these questions, and more. We'll solve artistic puzzles with mathematical theorems, using hands-on examples.

10:00-10:55 **Student Poster Session**

Organized by Cynthia Wyels, California Lutheran University

Judging Organized by Mario Martelli, Claremont McKenna College

Joan B. Kroc Institute for Peace and Justice Conference Rooms E and F

11:00-11:55 **Invited Address by Jeff Weeks**, Freelance Geometer

Joan B. Kroc Institute for Peace and Justice Theater

The Shape of Space

When we look out on a clear night, the universe seems infinite. Yet this infinity might be an illusion. During the first half of the presentation, computer games will introduce the concept of a "multiconnected universe", and interactive 3D graphics will take the viewer on a tour of several possible shapes for space. Then we'll see how satellite data released in February 2003 provide tantalizing clues to the true shape of our universe. We'll survey evidence for and against a finite universe, including some promising new developments from January 2004.

12:00-12:55 **Lunch**—Joan B. Kroc Institute for Peace and Justice Conference Rooms C and D

1:00-1:25 **Business Meeting**—Joan B. Kroc Institute for Peace and Justice Theater

Presentation of Section Distinguished Teaching Award

Presentation of Student Poster Session Prizes

1:30 - 2:25 **Invited Address by David Pengelley**, New Mexico State University

Joan B. Kroc Institute for Peace and Justice Theater

Gauss, Eisenstein, and the 'Third' Proof of the Quadratic Reciprocity Law:

Ein Kleines Schauspiel

Carl Friedrich Gauss, the most prominent mathematician of the 19th century, will square off against Gotthold Eisenstein, 21-year old mathematics student in Berlin, in a semi-fictional account of their views and proofs of a fundamental law revealing patterns in prime numbers.

Tentative Schedule continued on page 5



Tentative Schedule for 2004 Spring Meeting, continued

2:30 - 3:30 **Panel Discussion for Students: How to Land Your First Job**
Organized by Cynthia Wyels, California Lutheran University

Lecture/Demonstration for Faculty: Mathematics for Business Decisions
Presented by Richard Thompson, Univ. of Arizona; Julie Tarr, Pima Community College

3:30 - 3:45 **Afternoon Break and Reception**
Sponsored by John Wiley and Sons, Inc.
Joan B. Kroc Institute for Peace and Justice Rotunda

3:45 - 4:55 **Presentation by Deborah Hughes-Hallett, University of Arizona:**
The Future of Calculus Teaching and Learning
Sponsored by Section NEXt, University of San Diego, and John Wiley and Sons, Inc.

Workshop: Mathematics for Business Decisions
Presented by Richard Thompson, Univ. of Arizona; Julie Tarr, Pima Community College

Getting to and Staying Near the University of San Diego Campus

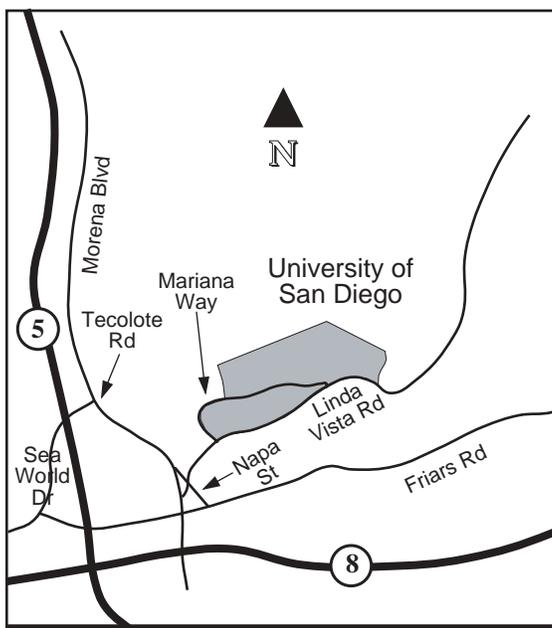
The meeting will take place on the University of San Diego campus at the Joan B. Kroc Institute for Peace and Justice, located on Marian Way. Marian Way is the West Entrance to campus. From Linda Vista Road, turn north on Marian Way. The Institute parking garage is the first right near the top of the hill. Parking is free. Park in the white lined spaces only. Take the elevators from the parking garage to the first floor of the Institute. Registration is in the Rotunda near the main (east) entrance to the building.

For information on traveling by train to San Diego, visit <http://www.amtrak.com> The train station is in downtown San

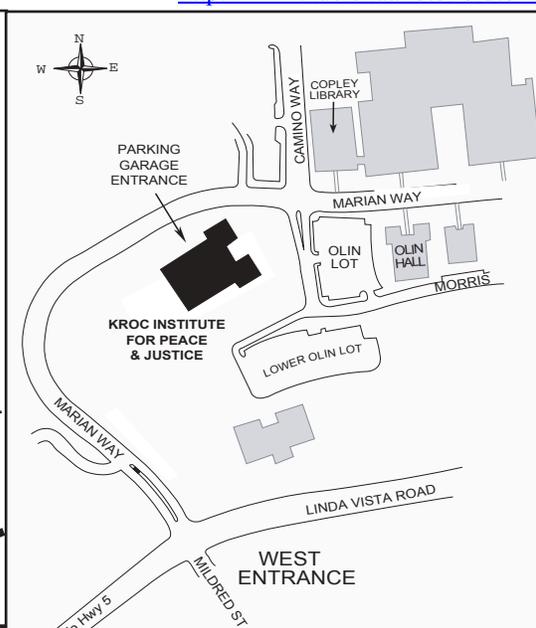
Diego, next door to a trolley station. The Morena/Lindavista trolley station is within walking distance of USD; there also is a station in Old Town. See the San Diego trolley map for details: <http://www.sdcommute.com/RiderInfo/trolley/trolley.asp>

For attendees who wish to arrive the day before or leave the day after the meeting, the following three hotels are close to the USD campus.

Hacienda Hotel, Old Town (ask for USD rate: \$115)
4041 Harney St.; (619) 298-4707 or (800) 888-1991
<http://www.haciendahotel-oldtown.com/>



AREA MAP



UNIVERSITY OF SAN DIEGO

Handlery Hotel & Resort (ask for USDCTC rate: \$98, includes full breakfast, drink, parking, local calls, newspaper)
950 Hotel Circle North; (619) 298-0511
<http://www.handlery.com/sd/>

Old Town Inn (ask for USD rate: \$76.37, includes buffet breakfast)
4444 Pacific Hwy.; (619) 260-8024
<http://www.oldtown-inn.com/>

See you in San Diego!



The Barbara Beechler I Knew

Melvin Henriksen, Harvey Mudd College

Barbara Beechler, Professor Emerita at Pitzer College and former MAA Southern California Section Governor, died on March 18, 2003, at age 74 of complications due to cancer.

I met Barbara Beechler when I joined the faculty of Harvey Mudd College (which specializes in engineering and science) in the fall of 1969. Barbara was the unique mathematician at Pitzer College (which specializes in social science) and had come there two years earlier, and I soon learned that she was one of the most important members of the mathematical community in Claremont, in part because she worked harder than any two of the rest of us.

While not many Pitzer College students take many courses in hard science, they still need to acquire mathematical skills even if they are not preparing to study calculus. Their needs are varied, no one individual could meet them all, and offering a few "remedial" courses could not possibly meet them. Barbara realized this very quickly and knew she had to help her students to make use of the resources available at the Claremont colleges, as well as create special courses for different individuals. So, among other things, she familiarized herself with most of the mathematics courses offered at each of the Claremont colleges as well as the teaching styles of each member of their faculties. When nothing else would work, she offered reading courses to students whose needs could not be met otherwise.

Understanding Barbara's impact on the Claremont colleges requires a little understanding of their nature. They consisted of five completely independent undergraduate colleges and an independent graduate school, each with their own departmental structure, grading systems, deans, presidents and boards of trustees. Students enrolled in one college are allowed to take some of their courses at any of the others subject to complicated rules enforced capriciously in constant states of change. Sometimes parts of these institutions cooperate, and at other times, personality conflicts developed into institutional wars. This anarchy made Barbara's formidable tasks even more difficult. Only a minority of her Pitzer colleagues had a friendly attitude towards mathematics, and she gained influence with her mathematical colleagues at the other colleges by offering help in a myriad of ways. Among other things, she took a lead in designing placement exams, she participated in programs to improve the teaching of mathematics in high school, she was an eagle-eyed proof reader who read the papers of colleagues for content as well as typography, she helped to make our colloquium series a success in part by entertaining speakers and attendees at her home at post-colloquium receptions, and she was the only person in Claremont who understood all of the grading systems at the different colleges. (Each college has a different one, and each student had to be graded by the system of the college in which he or she was enrolled. The easiest way to cope with this was to call Barbara and get a translation.) In this way, she became close to indispensable

to all of us. She also worked hard at advising students and did more than her fair share of committee work at Pitzer.

To do all of this, Barbara saddled herself with an enormous workload, usually well in excess of 60 hours per week. She would often arrive at her office before 6 a.m., and not go home until dark, but she never felt she was doing enough. As the years passed, problems with her health developed, but even that did not slow her down. She "retired" from the Pitzer faculty in a formal way in 1989, but continued to teach and involve herself with mathematical activities in Claremont and with the Southern California MAA, where she saw to it that meetings were properly organized and became the Secretary-Treasurer of the Section. When she took this office, the Section was badly in debt, but in a few years built up a surplus. This was the result of her efficiency combined with doing herself many jobs that had been farmed out for many years at substantial cost to the Section. She became Governor of the Section. She was awarded the Certificate of Meritorious Service at the 1995 national meetings, but the resulting recognition would not permit her to rest on her laurels. Her health continued to deteriorate, which slowed her down without stopping her.

The last few years of Barbara's life were not happy ones. It was difficult for her to accept help from friends when her pleasure in life had come mostly from being useful to others. Only death could stop her, but even that has not eradicated our memories of someone who gave so much for so little.

Section to Consider Electronic-Only Newsletter During Spring Business Meeting

The following motion will be discussed and voted on at the Business Meeting March 6 at the Spring Meeting at USD.

Motion: *The Southern California-Nevada Section shall cease printing a newsletter for postal distribution after fall 2004, and shall distribute the newsletter electronically beginning spring 2005.*

Background: The Section has mailed printed newsletters two to three times per year. Post Office regulations make this an expensive (~\$1750 per year) and onerous operation. Several other sections of the MAA have converted their newsletter to an electronic form. Section newsletters currently are available in pdf format at the Southern California-Nevada Section website at <http://www.maa.org/socal>

Proposal: The last printed newsletter will be the September 2004 newsletter. Beginning with the February 2005 newsletter, the newsletter will be distributed electronically to section members and MAA officials, as well as chairs of Mathematics Departments located in the section. Postcards will be sent to all section members late in 2004 or early in 2005 to notify them of the change and to give each member the option to continue to receive a printed newsletter. It is anticipated that few members will accept this option.



VOTE!!!
BALLOT
FOR
SECTION
OFFICERS

Please return
to Ernie Solheid,
Department of
Mathematics,
California State
University-
Fullerton,
800 N. State
College Blvd.,
Fullerton, CA,
92834

by Friday,
Feb. 27, 2004.

Position	Candidate(s)	Write-in Alternative
Section Vice-Chair	<input type="checkbox"/> Richard Katz CSU Los Angeles	
Second Program Vice-Chair	<input type="checkbox"/> George Jennings CSU Dominguez Hills	
Secretary-Treasurer	<input type="checkbox"/> Curtis Bennett Loyola Marymount Univ.	

***Note:** If you are a member of the MAA Southern California-Nevada Section, the MAA national office will send you a ballot for Section Governor shortly. Please vote!*

Pre-Registration/Luncheon Reservation Form
Spring Meeting at University of San Diego
Saturday, March 6, 2004

Enter the number of registrations of each type in the appropriate blank in the table below. Make checks payable to **Southern California-Nevada MAA**. (Attach a separate page for multiple registration information.)

Name _____

Affiliation _____

Address _____

E-mail address _____

Luncheon will be an Italian buffet including vegetarian entrees.

	Nonmember	MAA Member	New MAA Member First Meeting	Student
Registration Only	_____ @ \$30	_____ @ \$25	_____ @ FREE	_____ @ \$10
Registration and Luncheon	_____ @ \$45	_____ @ \$40	_____ @ \$15	_____ @ \$16

Total Enclosed \$ _____

On-site registration will be available at the meeting for \$5 more than pre-registration.

Questions? Contact Ernie Solheid, Meeting Coordinator
Email: esolheid@fullerton.edu, phone: (714) 278-7023

REGISTER FOR
THE SPRING
MEETING!

Complete the form at
right and send it with
payment to:

Ernie Solheid,
Department of
Mathematics,
California State
University-Fullerton,
800 N. State College
Blvd., Fullerton, CA,
92834

Registration deadline is
Friday, Feb. 27, 2004.



Flapan, Watkins Speak on Topology, Statistics in Phoenix, *continued from page 3*

(including California's). Noting that much of statistics has been developed during the careers of many active faculty members, it may not be surprising that many mathematicians have a very fragile grasp of statistics; indeed, correct responses to many elementary questions are not widely understood. With a wonderful array of examples, including an amazing collection of "living histograms," the audience was treated to an opportunity to learn some statistics while learning of some of the common misunderstandings--as well as the embarrassing consequences--of not having statisticians contributing to or reviewing the high stakes assessments and standards in California and other states. Not only did we learn how easy it is to make mistakes but we also learned that many of the "traditional topics" are mere artifacts of the early stages of development of the very young subject of statistics and are already obsolete, both practically and theoretically. – *Ken Millett, UC Santa Barbara*

Current MAA President Ron Graham, of UC San Diego, introduced **Ann Watkins** by reading an impressive list of her accomplishments, including both professional and teaching awards. Ann then began her final address as MAA President, "Fallacies in Elementary Statistics." While the level of mathematics in Ann's talk was not lofty, the situations that she described were clearly of interest to the audience, as indicated by the sprinkle of groans, chuckles, and nods of agreement throughout the address. Ann's main thesis was that mistakes are

made in the teaching of statistics due to the relative youth of the subject. The typical questions found in statistics textbooks have not been vetted to the extent of those in calculus texts. This leads to simplistic solutions to questions that are much more complicated. Guidelines written for K-12 standards are at the least inconsistent and at the worst nonsensical. Ann's audience left her presentation with two resolves: to ensure that a statistician is involved in the writing of their state's math standards, and to create a human histogram with their math majors! – *Claudia Pinter-Lucke, Cal Poly Pomona*

Plan to attend the Spring Meeting at the University of San Diego on Saturday, March 6, 2004!

Meeting Program: Pages 4-5
Registration Form: Page 7

What's (SoCalNev Section) NExT?

Florence Newberger, CSU Long Beach

Project NExT (New Experiences in Teaching) is an MAA program for new and recent PhDs in the mathematical sciences that addresses the full range of faculty responsibilities, including teaching, scholarly activities, and service. Since its inception in 1994, the national Project NExT program has grown tremendously, and sections of the MAA have been encouraged to organize regional NExT programs.

The SoCalNev Section NExT program is currently in its second year, and has sponsored a dynamic cohort of participants at the 2002-2003 and 2003-2004 MAA Section meetings. SoCalNev NExT will soon be recruiting applicants for the 2004-2005 school year. The program will accept applications from faculty with Master's Degrees or PhDs who are within the first three years of beginning full-time employment with significant teaching responsibilities at the college or university level.

SoCalNev Section NExT Fellows attend both the Fall and Spring meetings of the MAA Section and participate in special activities. These activities involve practical information about implementing effective pedagogical and professional strategies, including topics such as teaching methods, directing undergraduate research, and writing grant proposals. In addition, SoCalNev NExT provides a venue in which its participants can meet informally and discuss issues relevant to new faculty.

For more information, including a link to the on-line application when it becomes available and a list of past activities, please visit <http://www.maa.org/socal> and follow the link to SoCalNev NExT.

Weeks to Speak..., *continued from page 1*

been centered on geometry, with an emphasis on concrete results and on the beauty of the visual aspects of mathematics. His research has led to the development of very powerful tools to concretely implement abstract results in three-dimensional topology and geometry. His software, *SnapPea*, has been extremely influential among researchers worldwide, leading to a very effective census of knots and 3-dimensional spaces. At about the same time he was trouble-shooting *SnapPea*, Weeks also was writing the groundbreaking textbook, *The Shape of Space*, developing a novel approach to the college-level teaching of geometry. His later educational activities include the development of multimedia tools for the middle-school teaching of geometry through computer games and other hands-on experiments. He has taught us the fun of playing chess on a Klein bottle, and of flying inside Poincare dodecahedral space. His more recent research includes a collaboration with cosmologists aiming at determining the shape of our universe through the analysis of satellite data on microwave radiation.

Jeff Weeks also is well-known as a master of exposition. He has received numerous awards, including the MacArthur Fellowship—perhaps better known as the MacArthur "Genius Grant"—in 1999.

Vote for Section Officers!
Ballot: Page 7